

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Presently amended) A de-icing and/or anti-icing composition comprising one or more glycerol-containing by-products of triglyceride reactions selected from the group consisting of (1) glycerol containing by-products of triglyceride saponification reactions, (2) glycerol containing by products of triglyceride hydrolysis reactions ~~glycerol~~, (3) glycerol containing by-products of transesterification ~~reactions and~~ reactions and (4) mixtures thereof.
2. (Original) A deicing and/or anti-icing composition as defined in Claim 1 wherein said glycerol-containing by-product further comprises unreacted fatty acid, unseparated reactants, unseparated product and mixtures thereof.
3. (Presently amended) A de-icing and/or anti-icing composition as defined in Claim 1 wherein said glycerol-containing by-products of triglyceride saponification reactions are ~~by-product~~ is selected from the group consisting of spent lye, skimmed spent lye, purified spent lye, neutralized crude glycerol, pH adjusted crude glycerol, desalted crude glycerol, glycerol remnant, partially refined glycerol and mixtures thereof.
4. (Original) A deicing and/or anti-icing composition as defined in Claim 1 wherein said by-product of a triglyceride hydrolysis reaction comprises a reactor bottoms stream from a hydrolysis reactor.
5. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 4 wherein said reactor bottoms stream further is processed through an evaporation step to remove at least part of the water contained therein.

6. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 1 wherein said glycerol containing by-product of a transesterification reaction comprises triglyceride processing by-product ~~comprises~~ a glycerol containing by-product of a catalyzed transesterification reaction employing a monoalcohol to produce monoesters from fats and oils.
7. (Original) A deicing and/or anti-icing composition as defined in Claim 6 wherein said monoesters are produced for use in diesel fuel.
8. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 6 wherein said ~~monoalcohols are~~ monoalcohol is selected from the group consisting of methanol, ethanol and mixtures thereof.
9. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 6 wherein said glycerol containing by-product comprises ~~the~~ a transesterification effluent from which unconverted monoalcohol has been at least partially stripped for recovery and/or recycling.
10. (Original) A deicing and/or anti-icing composition as defined in Claim 9 wherein said reactor effluent further is processed to remove at least part of the contained water.
11. (Original) A deicing and/or anti-icing composition as defined in Claim 6 wherein a base is used as a catalyst in said transesterification reaction.
12. (Original) A deicing and/or anti-icing composition as defined in Claim 11 wherein said base is selected from the group consisting of sodium hydroxide, potassium hydroxide and mixtures thereof.
13. (Original) A deicing and/or anti-icing composition as defined in Claim 11 wherein said base catalyst is neutralized with an acid neutralizer.
14. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 13 wherein said acid neutralizer is selected from the group consisting of inorganic ~~acids-carbonic~~ acids, carbonic acids, hydroxycarboxylic acids, carboxylic acids, dicarboxylic acids and mixtures thereof.

15. (Original) A deicing and/or anti-icing composition as defined in Claim 14 wherein said acid neutralizer comprises acetic acid, lactic acid or mixtures thereof.
16. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 9 11 wherein said triglyceride processing by-product is processed further to remove substantially all of said base catalyst, unreacted fatty acid and unseparated product.
17. (Original) A deicing and/or anti-icing composition as defined in Claim 1 wherein said glycerol-containing triglyceride processing by-product is present in an amount ranging from about 2 to about 100 weight percent of the total composition.
18. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 1 wherein said composition further comprises an effective freezing point lowering amount of an additive comprising (a) a hydroxyl-containing organic compound selected from the group consisting of hydrocarbyl aldoses; ~~sorbitol and other~~ hydrogenation products of sugars, monosaccharides, maltodextrins and sucrose; ~~maltitol~~; glycols; monosaccharides and mixtures thereof, and/or (b) an acid salt selected from the group consisting of a carbonic acid salt, a carboxylic acid salt, a hydroxycarboxylic acid salt, a dicarboxylic acid salt and mixtures thereof.
19. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 18 wherein said additive is present in an amount ranging from about 0.5 to about 95 weight percent based on the weight of the ~~hydroxyl-containing~~ glycerol-containing triglyceride processing by-product and additive combined.
20. (Original) A deicing and/or anti-icing composition as defined in Claim 18 wherein said hydrocarbyl aldose comprises an alkyl aldose.
21. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 20 wherein said alkyl aldose is selected from the group consisting of alkyl glucosides, ~~an~~ alkyl furanosides, alkyl maltosides, alkyl maltotriosides, alkylglucopyranosides and mixtures thereof.

22. (Original) A deicing and/or anti-icing composition as defined in Claim 18 wherein said hydrocarbyl aldose comprises a disaccharide, a polysaccharide or mixtures thereof.
23. (Original) A deicing and/or anti-icing composition as defined in Claim 18 wherein said hydrogenation product of sugars comprises sorbitol, maltitol, xylitol, mannitol or mixtures thereof.
24. (Original) A deicing and/or anti-icing composition as defined in Claim 18 wherein said glycols comprise ethylene glycol, propylene glycol, diethylene glycol, dipropylene glycol or mixtures thereof.
25. (Original) A deicing and/or anti-icing composition as defined in Claim 18 wherein said monosaccharide is selected from the group consisting of glucose, fructose and mixtures thereof.
26. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 18 wherein said carboxylic acid ~~salts are~~ salt is selected from the group consisting of potassium or sodium salts of formates, acetates, propionates, butyrates and mixtures thereof.
27. (Original) A deicing and/or anti-icing composition as defined in Claim 18 wherein said hydroxycarboxylic acid salt is selected from the group consisting of sodium and potassium salts of lactic acid, gluconic acid and mixtures thereof.
28. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 18 wherein said dicarboxylic acid salt is selected from the group consisting of the potassium or sodium salts of oxalates, malonates, succinates, glutarates, adipates, maleates, fumarates and mixtures of any of the foregoing.
29. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 1 ~~18~~ wherein said carbonic acid salt is selected from the group consisting of potassium carbonate, potassium bicarbonate, sodium carbonate, sodium bicarbonate and mixtures of any of the foregoing.
30. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 1 wherein said ~~hydroxyl-containing triglyceride processing by~~

~~product is~~ glycerol-containing by-products of triglyceride reactions are combined with an effective freezing point reducing amount of a hydroxyl-containing organic industrial process stream.

31. (Original) A deicing and/or anti-icing composition as defined in Claim 30 wherein said industrial process stream is selected from the group of grain stillage, wood stillage, grain steepwaters, products of agricultural or milk fermentation processes, cane or beet sugar extraction processes and mixtures thereof.
32. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 1 wherein said ~~hydroxyl-containing triglyceride processing by-product stream is~~ glycerol-containing by-products of triglyceride reactions are combined with an effective freezing point reducing amount of an organic component selected from the group consisting of citrate salts, amino acids, amino acid salts, lignin components, boric acid, boric acid ~~salts-sodium~~ salts, sodium citrate, lysine glutamate, sodium pyrrolidone carboxylate, sodium glucoheptonate, lignin sulfonate and mixtures thereof.
33. (Presently amended) A deicing and/or anti-icing composition as defined in Claim 1 wherein said ~~hydroxyl-containing triglyceride processing by-product stream is~~ glycerol-containing by-products of triglyceride reactions are combined with an effective freezing point reducing amount of an inorganic salt.
34. (Presently amended) A deicing and/or anti-icing composition as defined in Claim ~~27~~ 33 wherein said inorganic salt is selected from the group consisting of sodium chloride, calcium chloride, magnesium chloride, potassium phosphates, sodium phosphates, ammonium phosphates, ammonium nitrates, alkaline earth nitrates, magnesium nitrate, ammonium sulfate, alkali sulfates and mixtures thereof.
35. (Presently amended) A method of deicing and/or anti-icing a surface, said method comprising ~~adding~~ applying to said surface a composition as defined in Claim 1.

36. (Original) A method as in Claim 35 wherein said surface is a pedestrian walkway or a vehicular roadway, highway, bridge or parking facility.
37. (Original) A method as in Claim 35 wherein said surface is an aircraft surface comprising wings, fuselage or tail surfaces.
38. (Original) A method as in Claim 35 wherein said surface is an airport runway or taxiway.
39. (Presently amended) A method as in Claim 35 wherein said surface comprises ~~the~~ a deck or portion of a superstructure of a ship.
40. (Original) A method as in Claim 35 wherein said surface comprises weather exposed industrial equipment.
41. (Presently amended) A method as in Claim 40 wherein said industrial equipment is selected from the group consisting of conveyor systems; storage facilities; support systems and lines for transmission of electric power or electronic signals; ~~or~~ exposed machinery ~~or~~ and exposed processing equipment.
42. (Original) A method as in Claim 35 wherein said surface comprises the surfaces of particles selected from the group consisting of coal, ores, sand and gravel.
43. (Presently amended) A liquid material for use at temperatures below the freezing point of water, said liquid comprising the anti-icing composition as defined in ~~Claim 1~~ Claim 1.
44. (Presently amended) A ~~method~~ liquid material as defined in Claim 43 wherein said liquid material is ~~used as~~ a fire extinguisher fluid.
45. (Presently amended) A liquid material as defined in Claim 43 wherein said liquid material is ~~used as~~ a heat transfer agent.
46. (Original) A liquid material as defined in Claim 45 wherein said heat transfer fluid is employed in an application selected from the group consisting of vehicular radiator systems, systems for transferring heat and systems for recovery of heat from process or power generation systems.

47. (Presently amended) A liquid material as defined in Claim 43 wherein said liquid material is ~~used~~ as a component of fluids used in drilling oil and gas wells.
48. (Presently amended) A method for deicing and/or anti-icing comprising ~~of~~ applying the deicing or anti-icing composition as defined in Claim 1 in a solid format to an area in need of deicing or anti-icing.
49. (Presently amended) A method as in Claim 48 wherein said solid format is ~~achieved by absorbing or adsorbing~~ comprises said deicing or anti-icing composition absorbed or adsorbed onto ~~on~~ an inert solid or binder.
50. (Original) A method as in Claim 49 wherein said inert solid or binder is selected from the group consisting of cinders, sand, sawdust, gravel and mixtures thereof.
51. (Presently amended) A method as in Claim 48 wherein said solid format is ~~achieved by absorbing or adsorbing~~ comprises said deicing or anti-icing composition absorbed or adsorbed onto ~~on~~ a solid deicing material.
52. (Presently amended) A method as in Claim 51 wherein said solid deicing material is selected from the group consisting of sugars, maltodextrins, inorganic salts, organic salts ~~or~~ and mixtures thereof.
53. (Original) A method as in Claim 52 wherein said inorganic salts are selected from the group consisting of sodium chloride, magnesium chloride, calcium chloride, trona and mixtures thereof.
54. (Presently amended) A method as in Claim 52 wherein said organic salts are selected from the group consisting of sodium or potassium salts of formic acid, acetic acid, lactic acid, calcium magnesium acetate, ~~or~~ and mixtures thereof.
55. (Original) A method as in Claim 48 wherein the solid format is achieved by processing said composition employing a procedure for converting a liquid to a solid.
56. (Original) A method as defined in Claim 55 wherein said procedure is selected from the group consisting of palletizing, prilling, flaking, macerating and combinations thereof.

57. (Presently amended) A deicing ~~or~~ and/or anti-icing composition as in Claim 1 further comprising a corrosion inhibitor.
58. (Presently amended) A deicing ~~or~~ and/or anti-icing composition as in Claim 57 wherein said corrosion inhibitor is selected from the group consisting of inhibitors comprising salts of gluconic acid, inhibitors comprising monocarboxylic acid salts and mixtures thereof.
59. (Presently amended) A deicing ~~or~~ and/or anti-icing composition as in Claim 1 further comprising solid materials to provide traction for vehicular traffic.
60. (Presently amended) A deicing ~~wherein~~ and/or anti-icing composition as in Claim 59 ~~wherein~~ wherein said solid materials are selected from the group consisting of sand, gravel, abrasives, salt and mixtures thereof.
61. (Original) A method for preventing frost damage to vegetation, said method comprising applying the deicing and/or anti-icing composition as in Claim 1 to said vegetation.
62. (Original) A method as in Claim 61 wherein said vegetation comprises pre-harvest fruits and vegetables, buds of fruit trees, recreational surfaces or golf greens.
63. (Presently amended) A ~~process for preparing the glycerol containing by product as defined in Claim 9~~ deicing and/or anti-icing composition as defined in Claim 6 wherein ~~the major portion~~ part or all of unconverted monoalcohol is removed from said a reactor effluent prior to removing a ~~major amount~~ part or all of the water contained therein.
64. (Presently amended) A process as described in Claim 63 wherein ~~the process is~~ said monoalcohol removal is effected in a fractional distillation process conducted ~~at low pressure, or~~ under a vacuum.